

IN THE SPECIFICATION:

The title has been amended to read as follows.

--IMAGE PROCESSING APPARATUS PROVIDING NOISE
CORRECTION--.

Please replace the paragraph starting at page 10, line 13, and ending at page 11, line 8, with the following amended paragraph.

--Area AF such as illustrated in Figs. 6A to 6C is prevailing in order to broaden a focus area on an image pickup screen of an ~~autofocussing~~ autofocusing camera. A conventional photoelectric conversion unit 70 shown in Figs. 7A to 7C uses a plurality of line sensors [[31]] 71 with pixels disposed linearly. A photoelectric conversion unit 30 shown in Figs. 6A to 6C using area AF uses area sensors 31 with dense pixel trains disposed in each area, so that a broad area on an image pickup area can be ~~focussed~~ focused. In this embodiment, the photoelectric conversion unit uses area sensors having a plurality of inversion amplification type pixels disposed in each area as disclosed in Japanese Patent Application Laid-Open No. 10-190038. This area sensor 31 has a number of pixels on one chip larger than that of a conventional line sensor. Therefore, a variation in levels of fixed pattern noises of pixels is likely to become large, because of various restrictions on the manufacture processes of a photoelectric conversion chip. As seen from a comparison between Figs. 1 and 4, and 2 and 5, the variation of fixed pattern noises becomes larger than that of a conventional photoelectric conversion unit, for the following reasons.--

Please replace the paragraph at page 19, lines 8-27, with the following amended paragraph.

--Referring to Fig. 8, PRS is a control circuit of the camera, and, for example, a one-chip microcomputer having a CPU 32a (central processing unit), a ROM 32b, a RAM 32c, an EEPROM 32d, an A/D converter 32e and a timer TM 32f. This control circuit PRS performs a series of camera operations such as automatic exposure control, automatic focussing, and film feeding and taking-up, in accordance with a camera sequence program stored in ROM. To this end, the control circuit PRS communicates with peripheral circuits in the camera and controllers in a lens system (LNS), by using communication signals SO, SI, SCLK and communication select signals CLCM, CSDR and CDDR, to control the peripheral circuits (e.g., DDR a microcomputer) and a motion of lenses, and to acknowledge an A/D conversion input and an interruption input and receive pixel data. ROM can store control data for peripheral circuits as well as the sequence program. A flash memory is used as ROM in which data specific to respective circuits is stored to perform the operations in accordance with this data.--

Please replace the paragraph starting at page 20, line 25, and ending at page 21, line 23, with the following amended paragraph.

--A subject image taken with a camera is projected via a distance measurement optical system upon an area sensor. Therefore, a difference of brightness on the whole area sensor is generally greater than the dynamic range of the sensor. The CMOS area sensor can issue an accumulation completion signal when an accumulation

completion at each pixel train shown in Fig. 6C is detected. When accumulation at the pair of pixel trains A1 and B1 at distance measurement point 1, one of a number of distance measurement areas, is completed, a pixel train A1, B1 accumulation completion flag is set in the photoelectric conversion unit SNS. The accumulation completion signal is sent via the /TINTE line to PRS. Upon reception of the accumulation completion signal from SNS, PRS transmits a command to SNS to make SNS send back accumulation flag information, and judges from the flag state the accumulation completion pixel trains. PRS controls SNS to output the photoelectrically converted data of the pixel trains via the VIDEO line. The control circuit PRS receives from the A/D conversion port the light amount analog value of the subject image formed on each pixel of the area sensor, performs the correction process for the pixel value, and thereafter performs a predetermined focus detection calculation to know a de-focus amount of the taking lens. The software sequence of this control will be later described.--

Please replace the paragraph at page 22, lines 9 and 10, with the following amended paragraph.

--If the switch SW1 is ~~[[off]]~~ on at Step (001), the flow advances to Step (003) to start the camera operation.--

Please replace the paragraph starting at page 22, line 23, and ending at page 23, line 6, with the following amended paragraph.

--While Steps (003) and (004) are repeated, the control circuit PRS checks the state of a switch SW2 (005) which is turned on by the second stage depression of the release button. If the switch SW2 turns on, the shutter control process is immediately performed to enter the photographing operation in accordance with the operation mode preset by an unrepresented setting mechanism (006), or the photographing operation is performed after an in-focus state is realized by the completion of the sub-routine “AF control”. The details thereof are not described in this embodiment.--

Please replace the paragraph at page 27, lines 3-19, with the following amended paragraph.

--After Step (806), the control circuit enters a sleep state at Step (807). The sleep state means a temporary suspension of the operation of the control circuit PRS until the sleep release conditions are met. The sleep release conditions are met when a sleep release signal is issued by the accumulation completion interruption process. When the sleep state at Step (807) is released, the process resumes from Step (901) next to the accumulation completion wait sleep Step [[(900)]] 807 in Figure 10. The sleep state is also released by a time-out error of an unrepresented time-out timer which error occurs when an accumulation completion takes an abnormally long time. This sleep state is also released by an abnormal operation such as the power-off during the operation and an insufficient battery capacity. However, the details of these are omitted because these are not relevant to the processes of the embodiment.--

Please replace the paragraph at page 29, lines 12-21, with the following amended paragraph.

--At Step (1005) a [[sleeve]] sleep release signal is sent to activate the process entered the sleep state at Step (807). However, until the interruption process is completed, the interruption process continues preferentially. Therefore, Step (1006) is continuously executed. At Step (1006) the accumulation completion interruption is set again for the preparation of the next accumulation completion interruption to be issued from the sensor SNS. The accumulation completion interruption is terminated at Step (1007).--